

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A culturing apparatus for culturing cellular tissues therein, comprising:

a first chamber;

a plural number of air-lock type inlet/outlets, being provided in said first chamber, each of said plural number of air-lock type inlet/outlets including at least one check valve keeping an inside of said first chamber at a positive pressure compared to an outside;

a second chamber for culturing the cells therein; and

a manipulator operating within said first chamber, through remote control or an automatic control, wherein said manipulator can access to both, at least one of said air-lock type input/outputs and said second chamber.

2. (Previously Presented) A culturing apparatus, as described in the claim 1, wherein each of said air-lock type inlet/outlets is divided into two portions by two pieces of doors, in which the door of one portion divided communicates that portion to an inside of said first chamber, while the other portion divided communicates to an outside of said culturing apparatus.

3. (Currently Amended) A culturing apparatus, as described in the claim 2, wherein each of said plural number of air-lock type inlet/outlets has a first check valves valve on a side surface portion opposing to the inside of said first chamber and a second check valve on a side surface portion opposing to the outside of said culturing apparatus.

4. (Previously Presented) A culturing apparatus, as described in the claim 1, further comprising a turntable being able to hold an integrated vessel within said second chamber, wherein a door is provided on a side surface or a bottom surface of said second chamber, for enabling said manipulator to access to this turntable.

5. (Previously Presented) A culturing apparatus, as described in the claim 1, further comprising a supply source for supplying a medium to an integrated vessel held within said second chamber and a controlled gas to said first chamber, and a control apparatus for controlling said manipulator.

6. (Original) A culturing apparatus, as described in the claim 1, further comprising control means for controlling flow, temperature or humidity of gas communicating within said first chamber.

7. (Previously Presented) A culturing apparatus, as described in the claim 4, wherein the integrated vessel containing a medium is provided on said turntable said turntable is rotatable in a direction of periphery thereof by an angle being equal or greater than 360 degree, and said medium within the integrated vessel is flowable or the position of said integrated vessel is changeable.

8-9. (Canceled).

10. (Previously Presented) A culturing apparatus according to claim 1, wherein said second chamber is provided within said first chamber.

11. (Previously Presented) A culturing apparatus according to claim 6, wherein said second chamber is provided within said first chamber.

12. (Previously Presented) A culturing apparatus, as described in the claim 6, wherein each of said air-lock type inlet/outlets is divided into two portions by two pieces of doors, in which the door of one portion divided communicates that portion to an inside of said first chamber, while the other portion divided communicates to an outside of said culturing apparatus.

13. (Currently Amended) A culturing apparatus, as described in the claim 11, wherein each of said plural number of air-lock type inlet/outlets has a first check valve on a side surface portion opposing to the inside of said first chamber and a second check valve on a side surface portion opposing to the outside of said culturing apparatus.

14. (Previously Presented) A culturing apparatus, as described in the claim 6, further comprising a turntable being able to hold an integrated vessel within said second chamber, wherein a door is provided on a side surface or a bottom surface of said second chamber, for enabling said manipulator to access to this turntable.

15. (Previously Presented) A culturing apparatus, as described in the claim 6, further comprising a supply source for supplying a medium to an integrated vessel held within said second chamber and a controlled gas to said first chamber, and a control apparatus for controlling said manipulator.

16. (Previously Presented) A culturing apparatus, as described in the claim 14, wherein said turntable is rotatable in a direction of periphery thereof by an angle being equal or greater than 360 degree, and the medium within the integrated vessel is flowable or the position of the integrated vessel is changeable.

17. (New) A culturing apparatus for culturing cellular tissues therein, comprising:

a first chamber;

a plural number of air-locks provided in said first chamber, each of said plural number of air-locks having an inlet and an outlet;

a second chamber for culturing the cells therein; and

a manipulator operating within said first chamber, through remote control or an automatic control, wherein said manipulator can access to both, at least one of said air-locks and said second chamber.

18. (New) A culturing apparatus, as described in the claim 17, wherein each of said plural number of air-locks has at least one check valve keeping an inside of said first chamber at a positive pressure compared to an outside.

19. (New) A culturing apparatus, as described in the claim 18, wherein each of said plural number of air-locks has a first check valve on a side surface portion opposing to the inside of said first chamber and a second check valve on a side surface portion opposing to the outside of said culturing apparatus.

20. (New) A culturing apparatus, as described in the claim 17, wherein said second chamber is provided within said first chamber.